

1 / 3 2

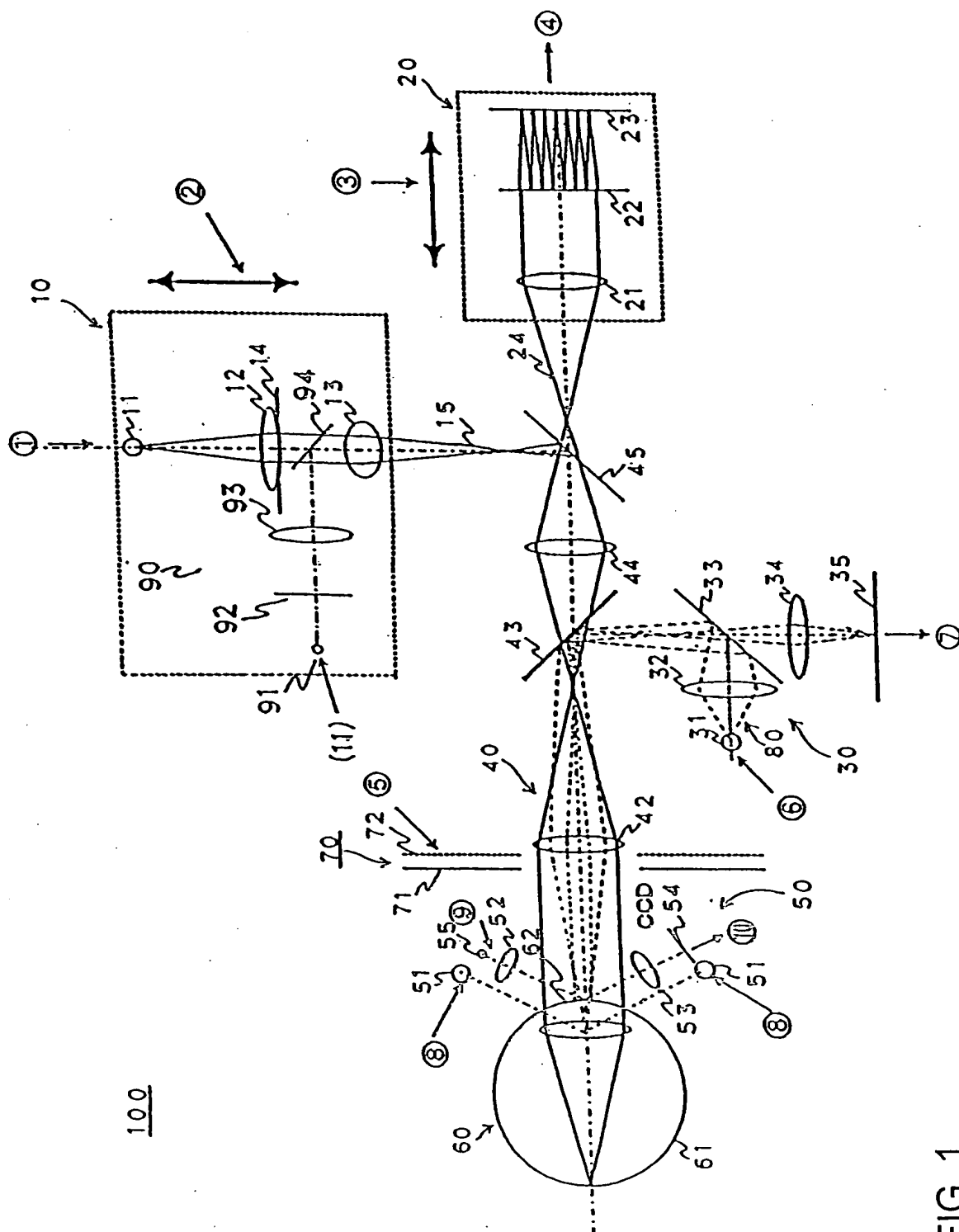


FIG. 1

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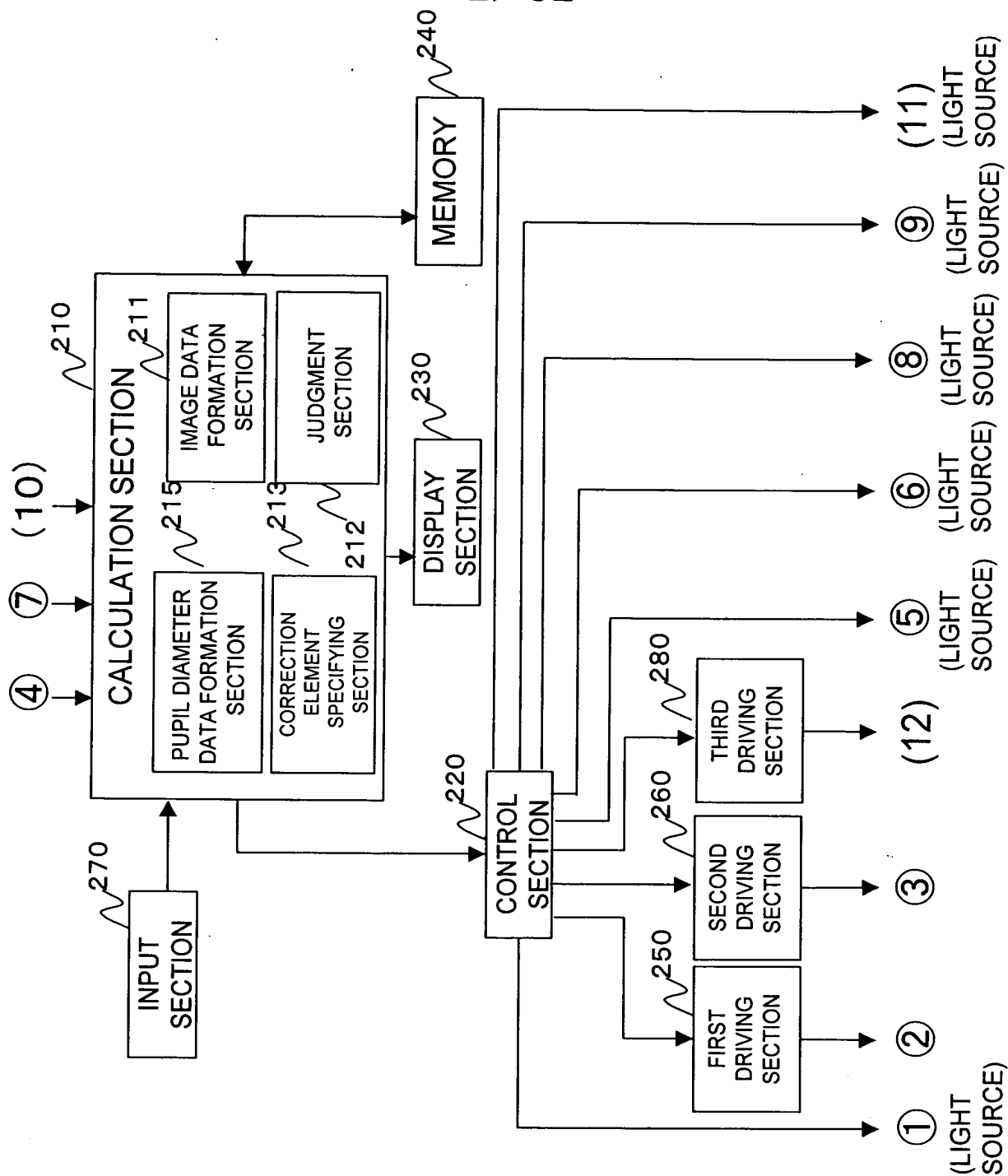
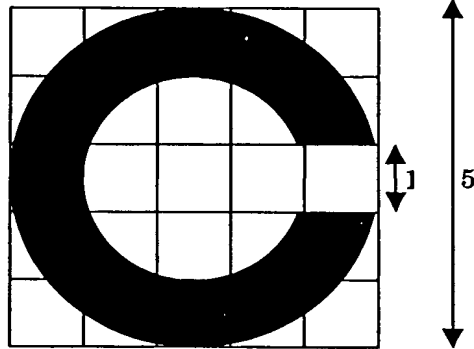


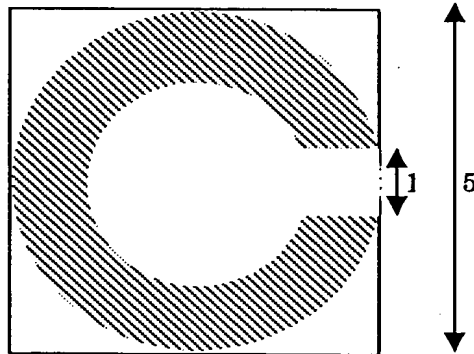
FIG. 2

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LANDOLT'S RING



HIGH CONTRAST



LOW CONTRAST

FIG.3

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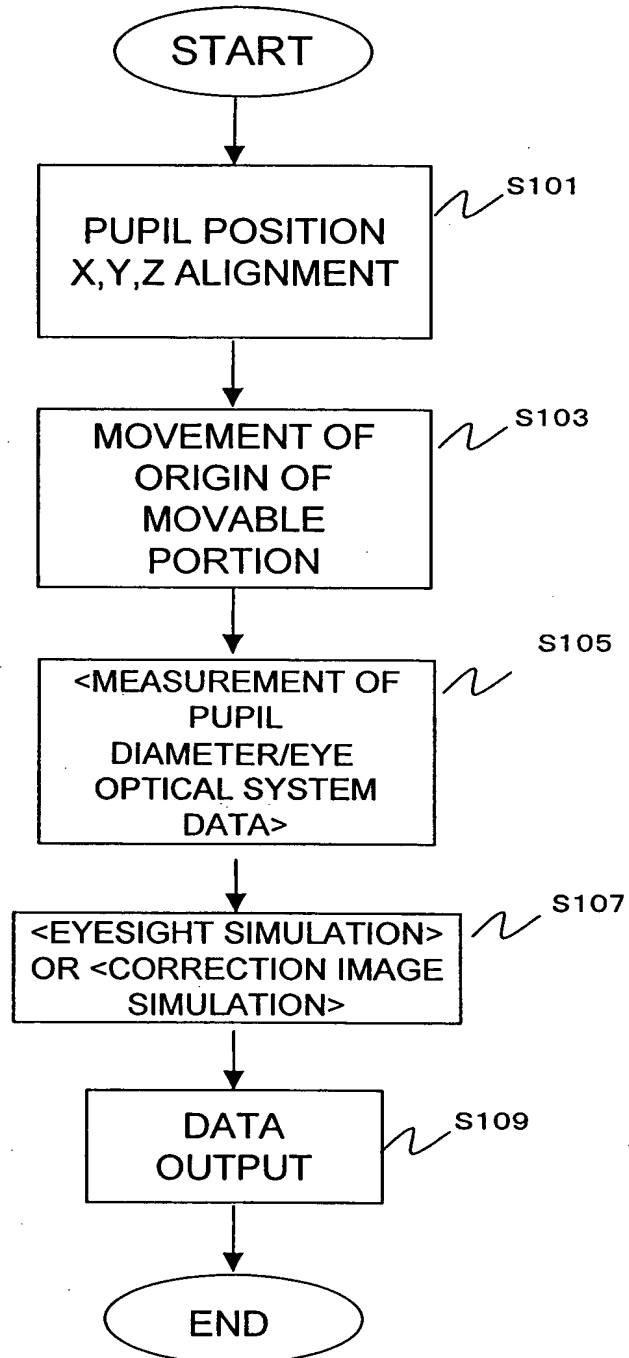


FIG. 4

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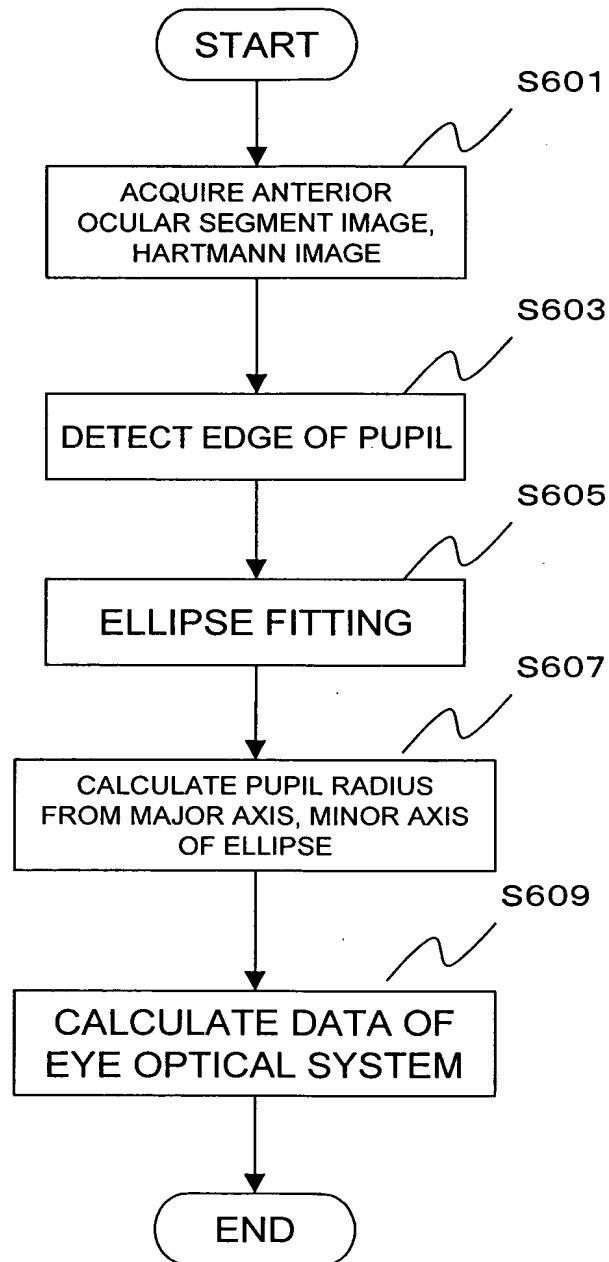


FIG.5

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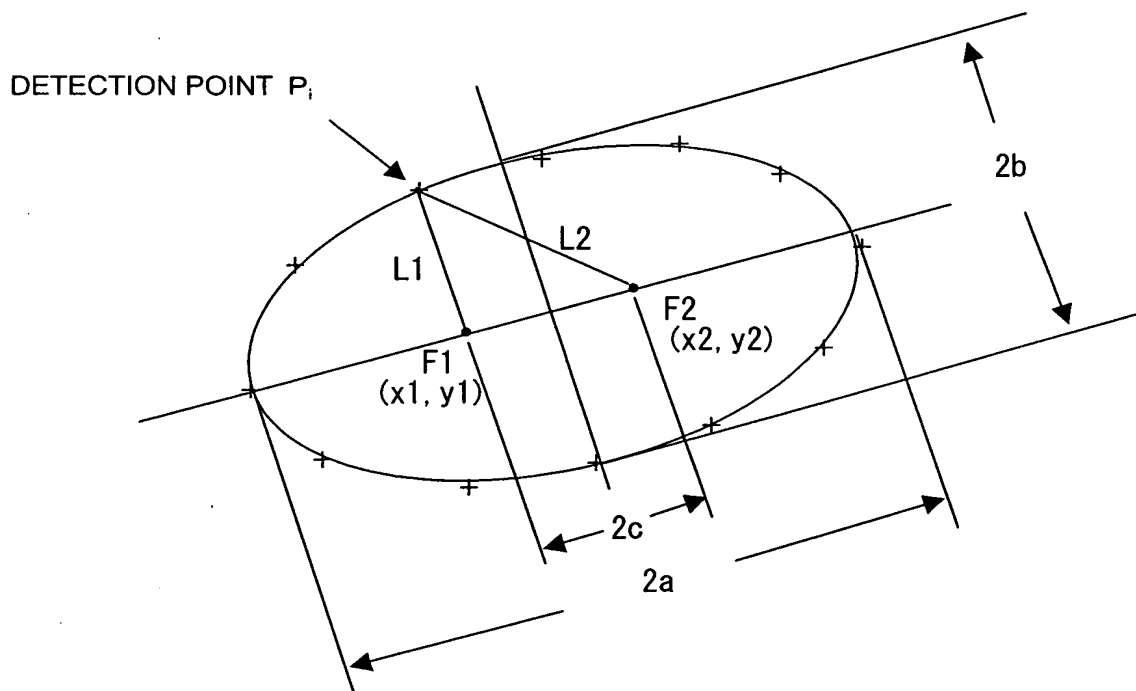


FIG.6

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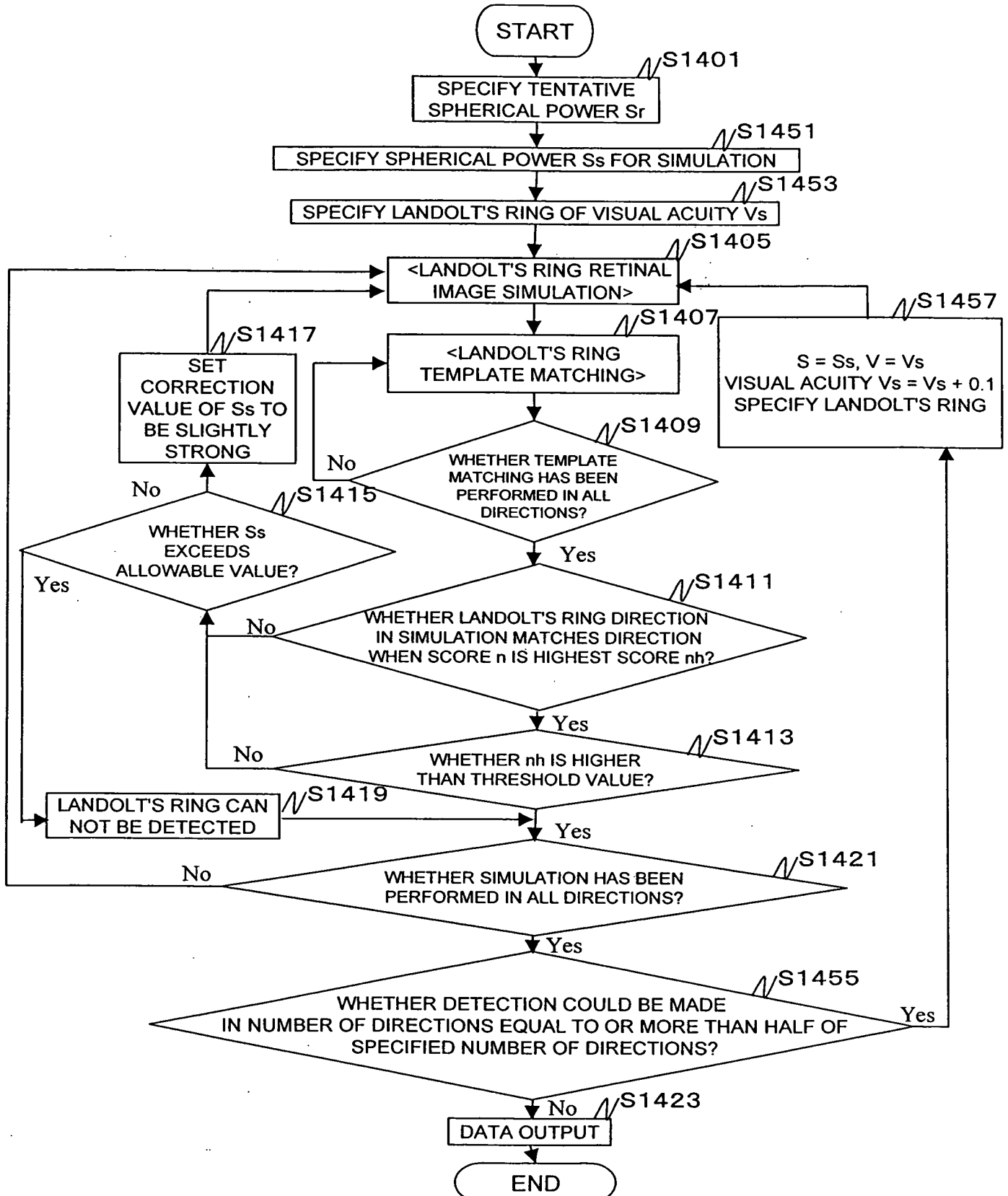


FIG.7

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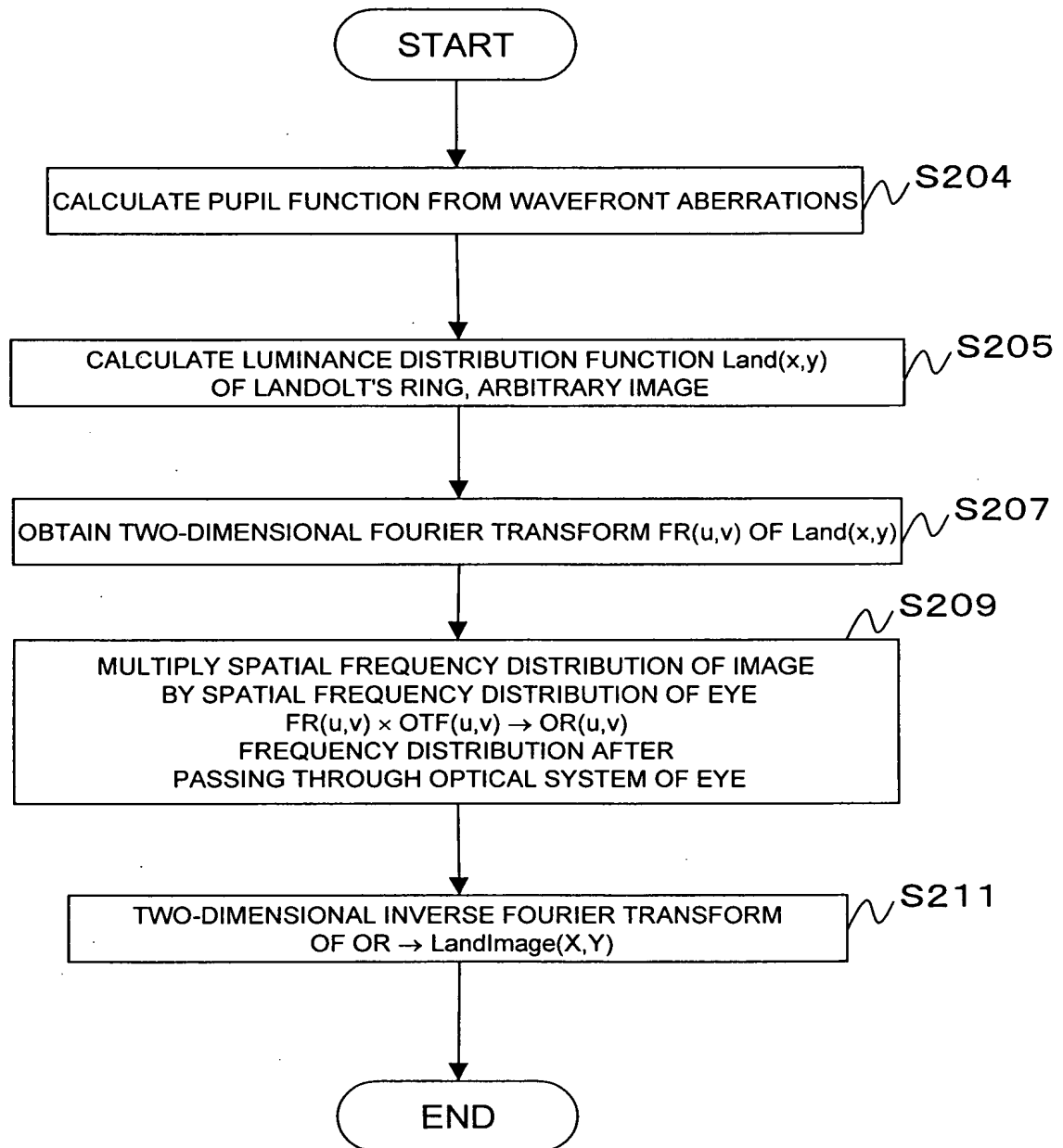
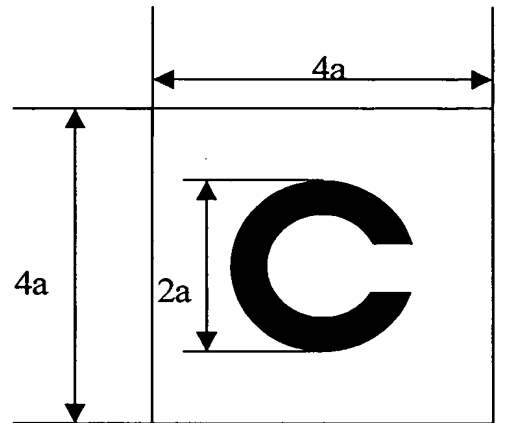


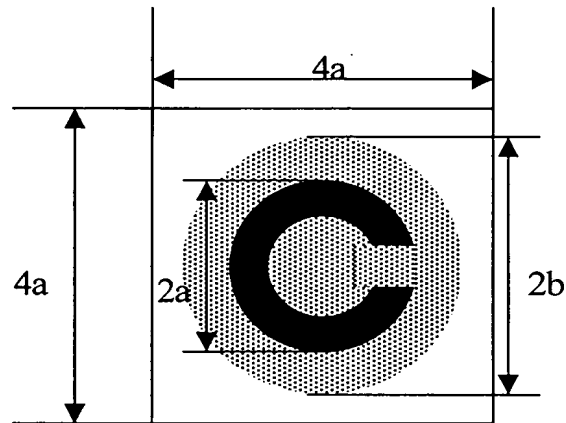
FIG.8



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LANDOLT'S RING ORIGINAL IMAGE



TEMPLATE IMAGE

FIG.9

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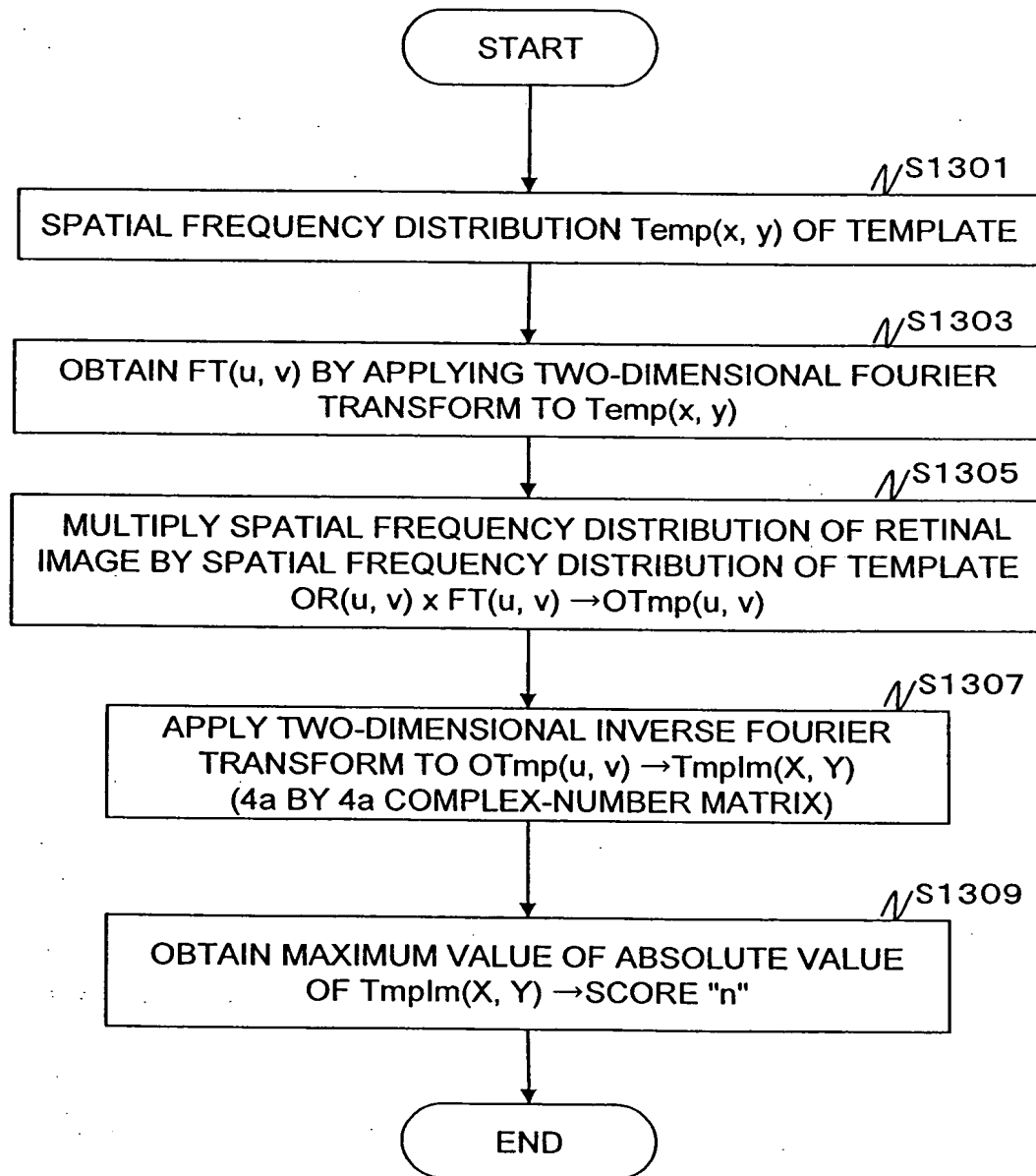


FIG. 10

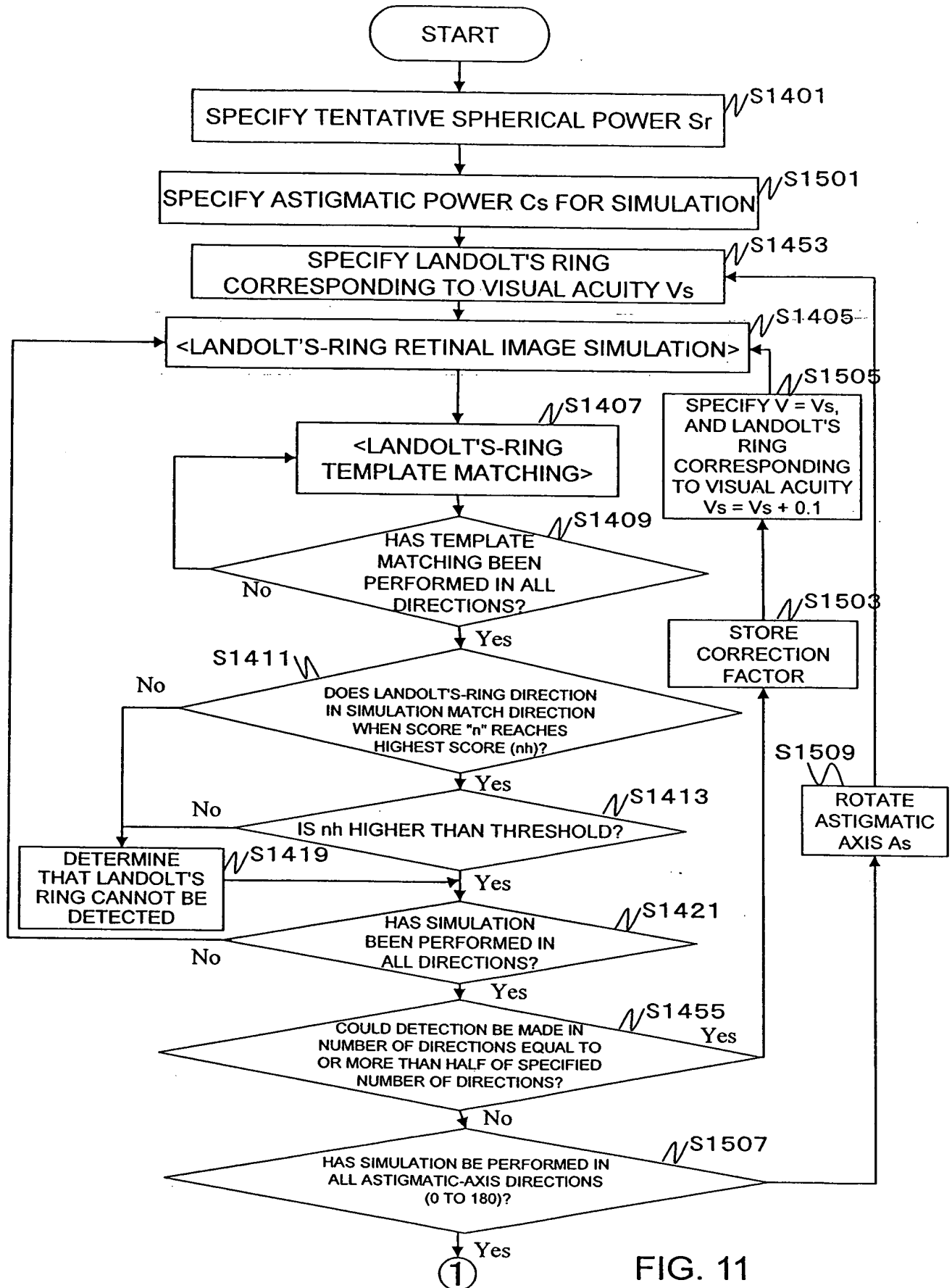


FIG. 11

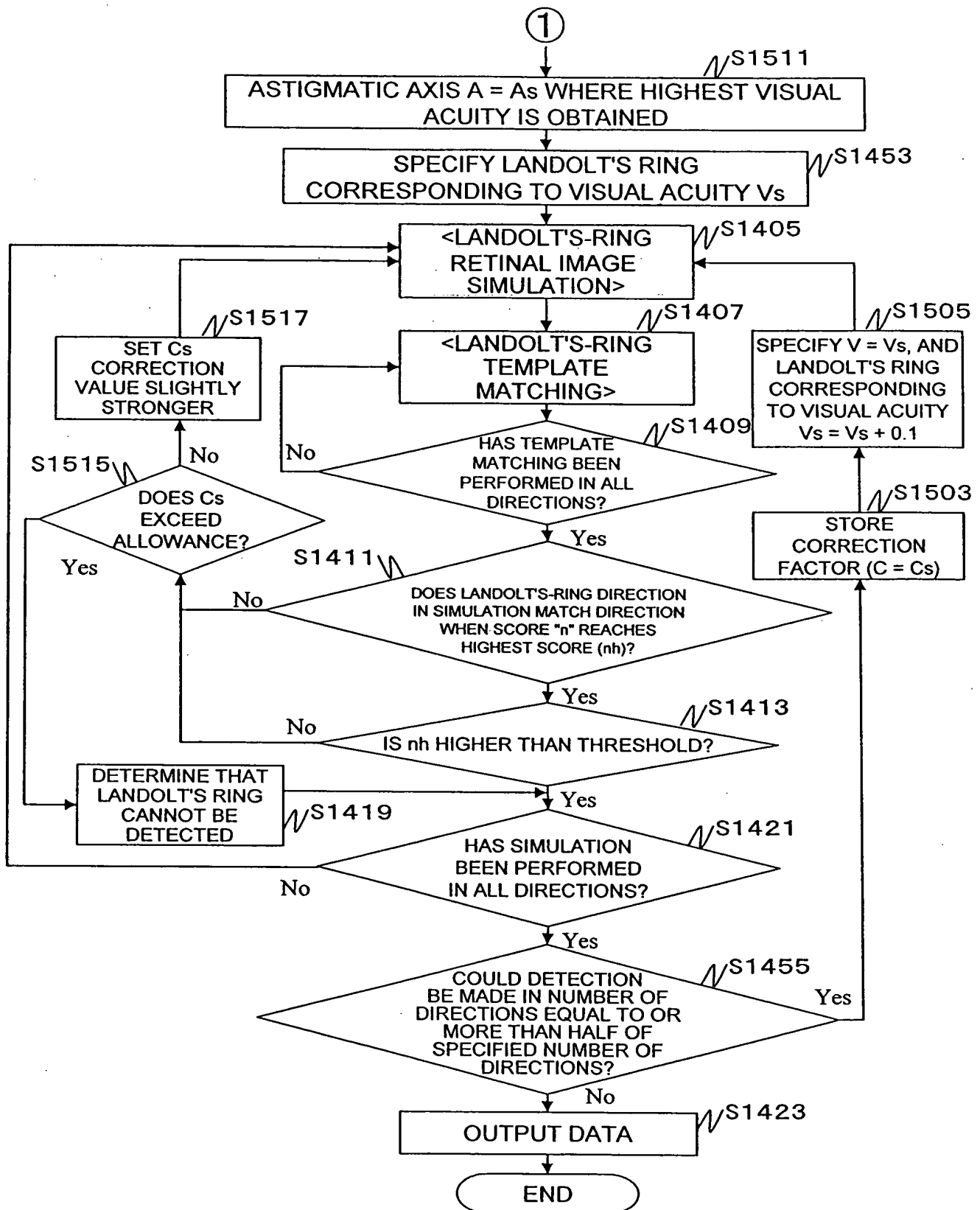


FIG. 12

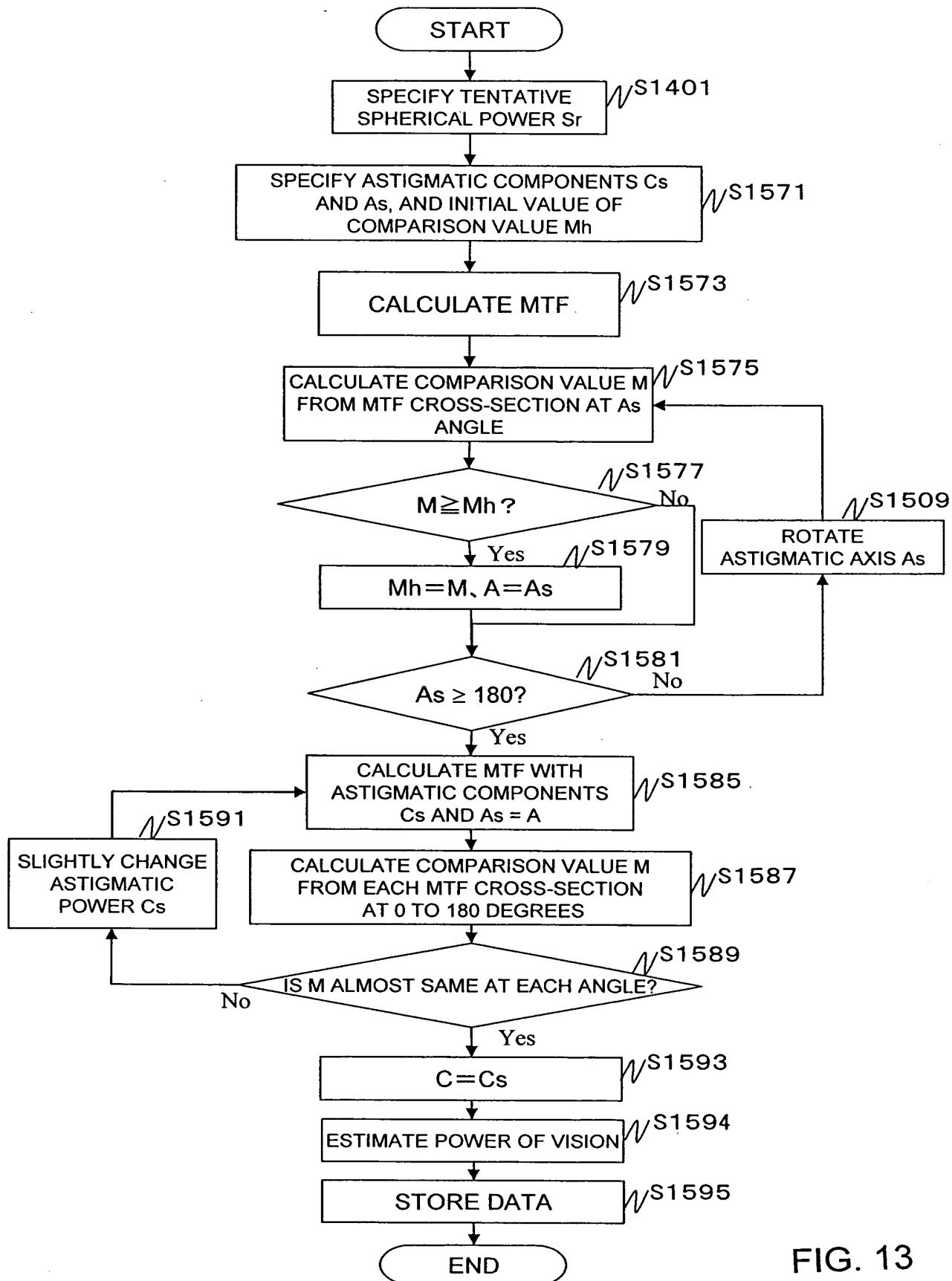


FIG. 13

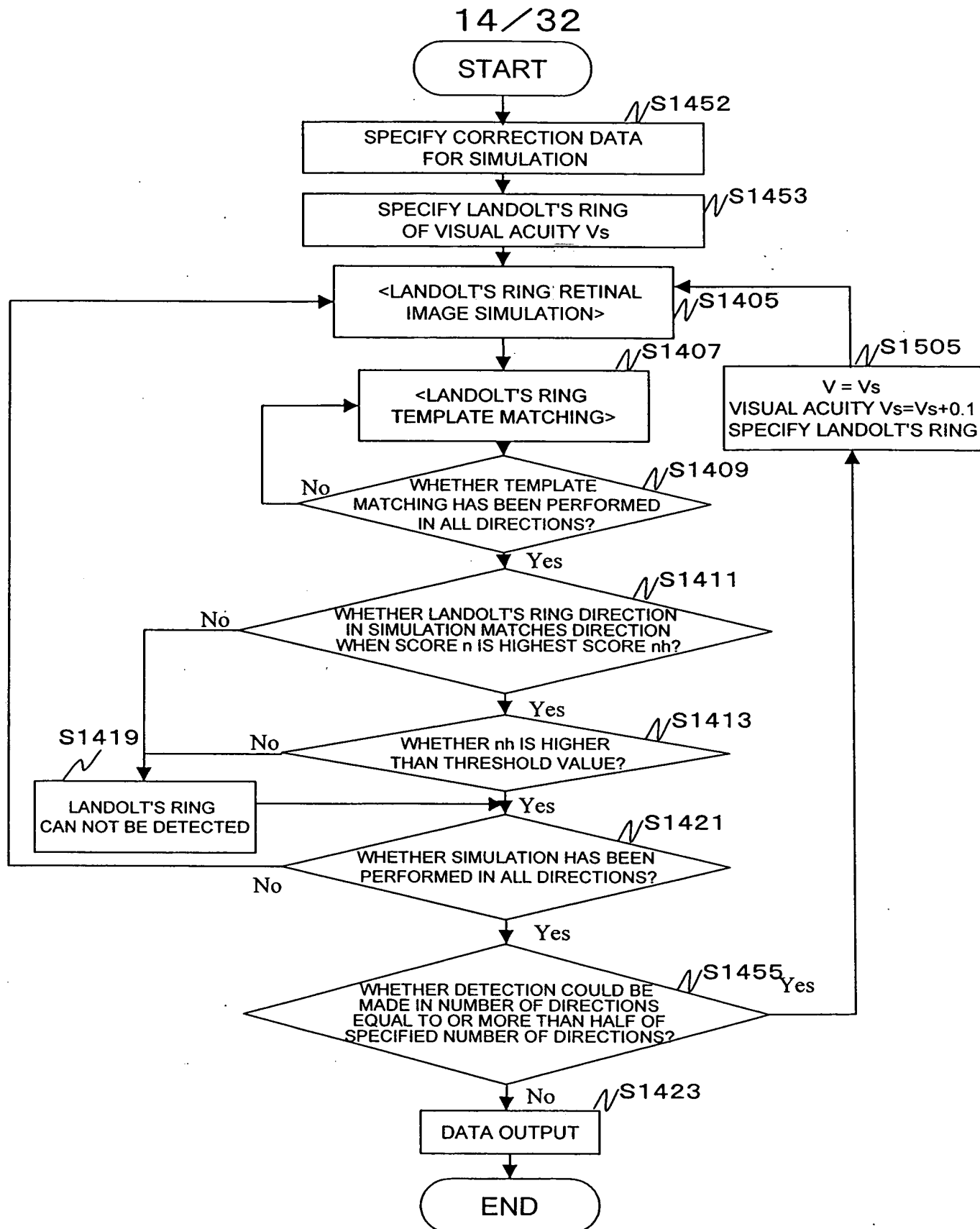


FIG.14

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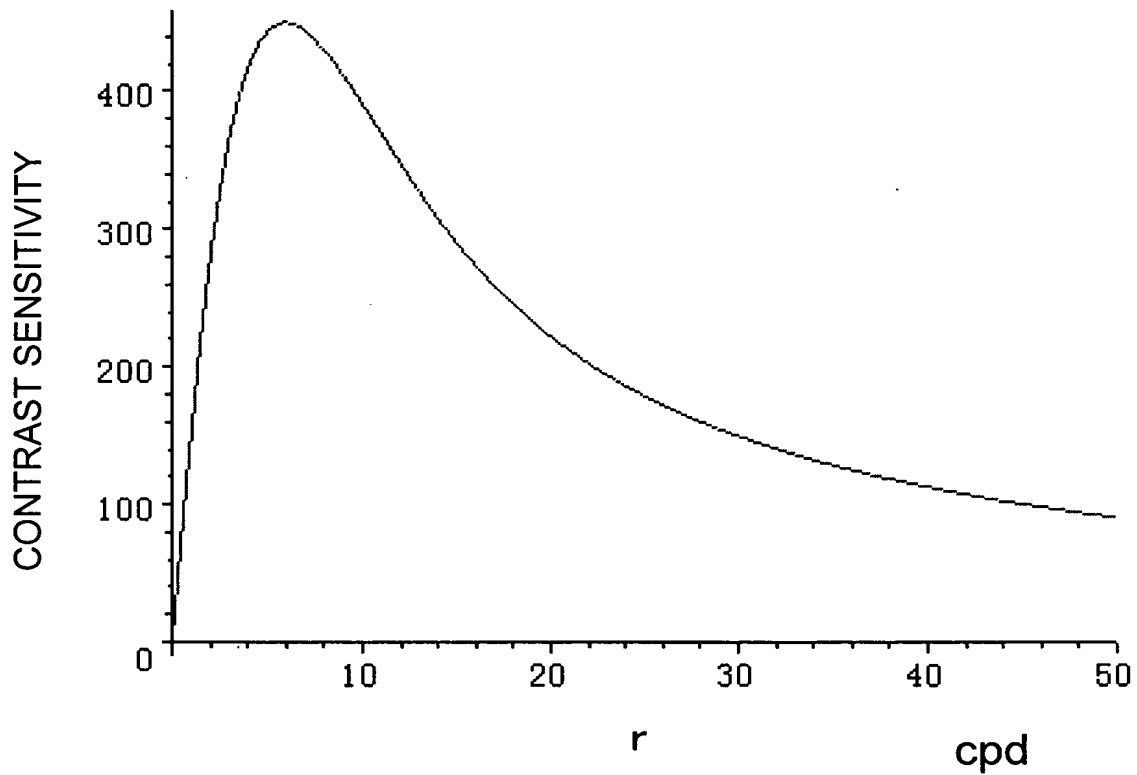
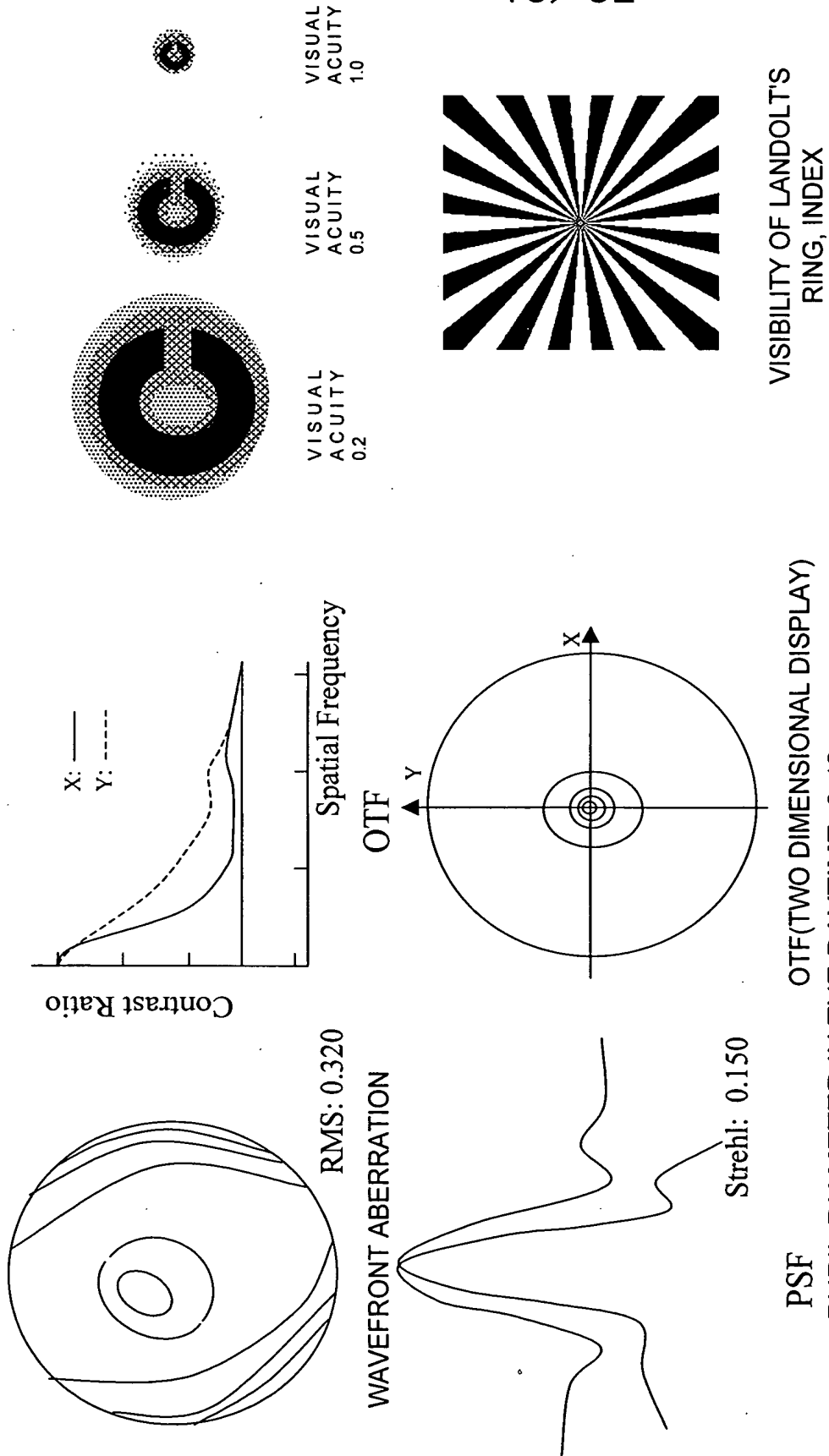


FIG.15



	S	C	Ax	CORRECTED VISUAL ACUITY
COMPENSATION CORRECTION DATA	-7.15	-0.35	5 DEGREES	1.5
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)	(1.2)

BEST IMAGE DISPLAY - TEMPLATE MATCHING  
FIG.16

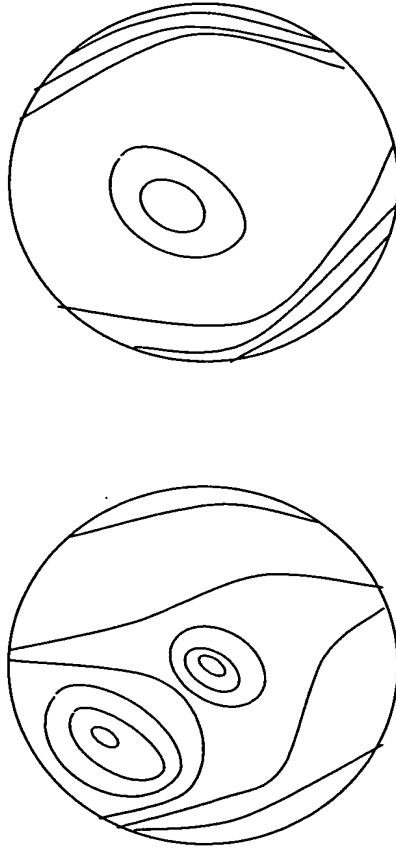


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MITSUKO TOKYO AM 8:04 MARCH 2, 2000

BEFORE CORRECTION AFTER CORRECTION

WAVEFRONT  
ABERRATION



VISIBILITY OF  
LANDOLT'S RING



PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	BEFORE COMPENSATION	AFTER COMPENSATION
CORRECTED VISUAL ACUITY	1.2	1.5

FIG. 17

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PREScription DATA FOR EYEGlasses/CONTACTS

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15
C	-0.5	-0.35
A	3	5
CORRECTED VISUAL ACUITY	1.2	1.5

FIG.18

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# PRESCRIPTION DATA FOR REFRACTIVE SURGERY

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	MEASURED VALUE	COMPENSATION CORRECTION DATA	PREDICTED VALUE AFTER COMPENSATION CORRECTION
S	-7.00	-7.15	-0.15
C	0.5	0.35	0.15
A	3	5	4
HIGHER ORDER SPHERICAL ABERRATION	0.125		0.280
HIGHER ORDER ASTIGMATIC ABERRATION	0.105		0.125
HIGHER ORDER COMA ABERRATION	0.085		0.090
CORRECTED VISUAL ACUITY	1.2	2.0 (IDEAL VALUE)	1.5

FIG. 19

PRESCRIPTION DATA FOR EYEGASSES/CONTACTS  
(COMPARISON WHEN ENVIRONMENTAL CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	IN THE DAYTIME 3.42mm		UNDER FLUORESCENT LAMP 6.54mm		IN ROOM AND DAYTIME 4.35 mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15	-7.33	-7.43	-7.18	-7.31
C	-0.5	-0.35	-0.40	-0.45	-0.45	-0.38
A	3	5	4	4	3	4
CORRECTED VISUAL ACUITY	1.2	1.5	1.0	1.2	1.2	1.2

VISIBILITY OF  
LANDOLT'S RING  
(0.5)

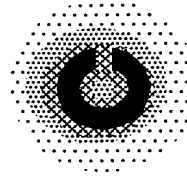
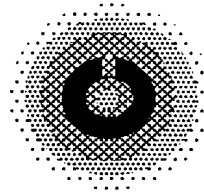


FIG.20

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PUPIL DATA  
 (COMPARISON WHEN ENVIRONMENTAL  
 CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER		IN THE DAYTIME: 3.42 mm	UNDER FLUORESCENT LAMP: 6.54 mm	IN ROOM AND DAYTIME: 4.35 mm
SHIFT AMOUNT FROM LIMBUS CENTER (mm)	x	0.542	0.723	0.601
	y	0.109	0.120	0.110
CORRECTED VISUAL ACUITY		1.5	1.2	1.2

FIG.21

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PREScription DATA FOR EYEGASSES/CONTACTS  
 (COMPARISON TO CONSTANT PUPIL DIAMETER)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	4mm		6mm		AT TIME OF MEASUREMENT (50 lx): 6.45 mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.03	-7.18	-7.30	-7.45	-7.33	-7.43
C	-0.52	-0.41	-0.40	-0.43	-0.40	-0.45
A	3	5	4	5	4	4
CORRECTED VISUAL ACUITY	1.2	1.5	1.0	1.2	0.9	1.0

VISIBILITY OF  
 LANDOLT'S RING  
 (0.5)

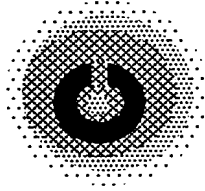
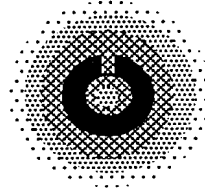


FIG.22

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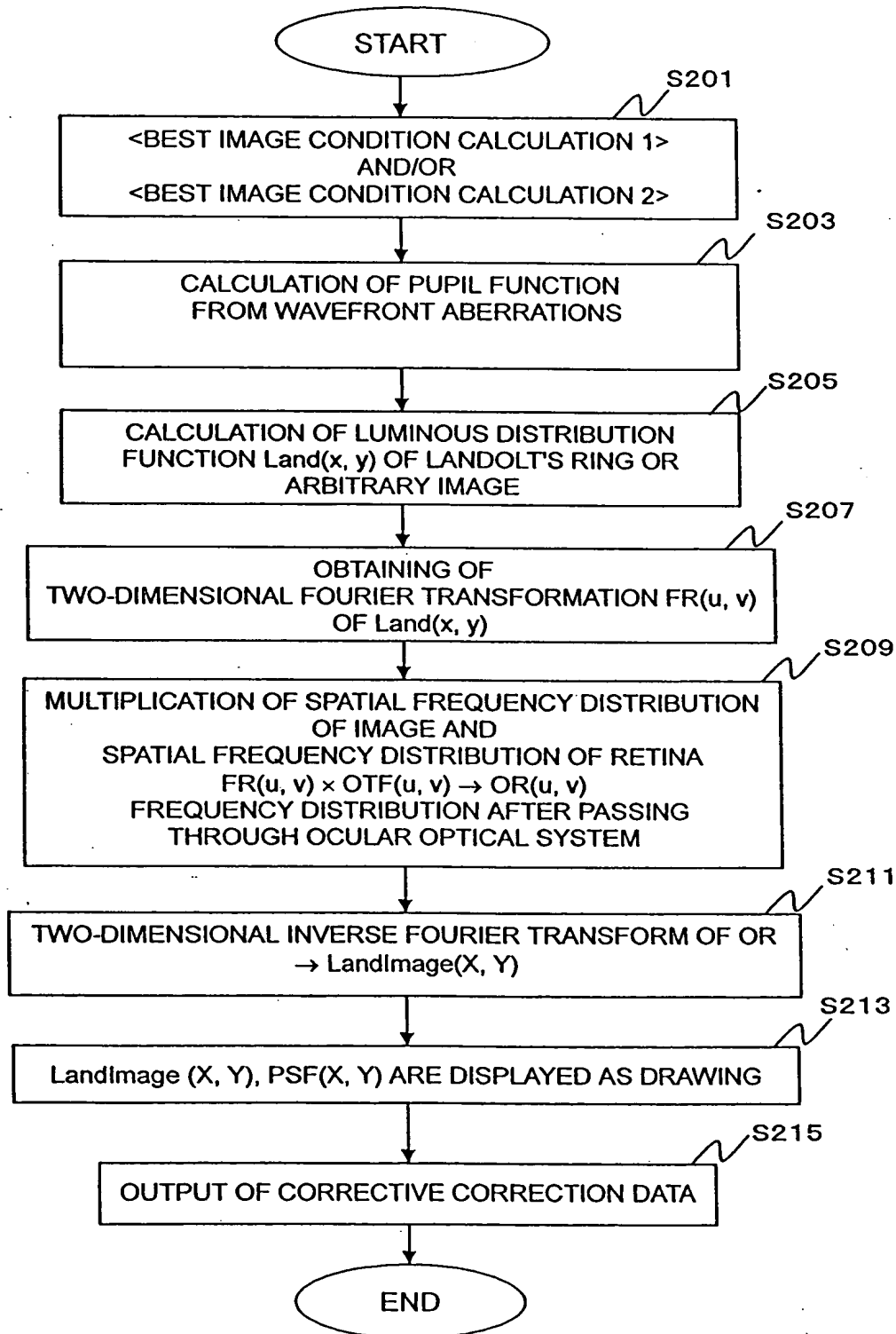


FIG.23

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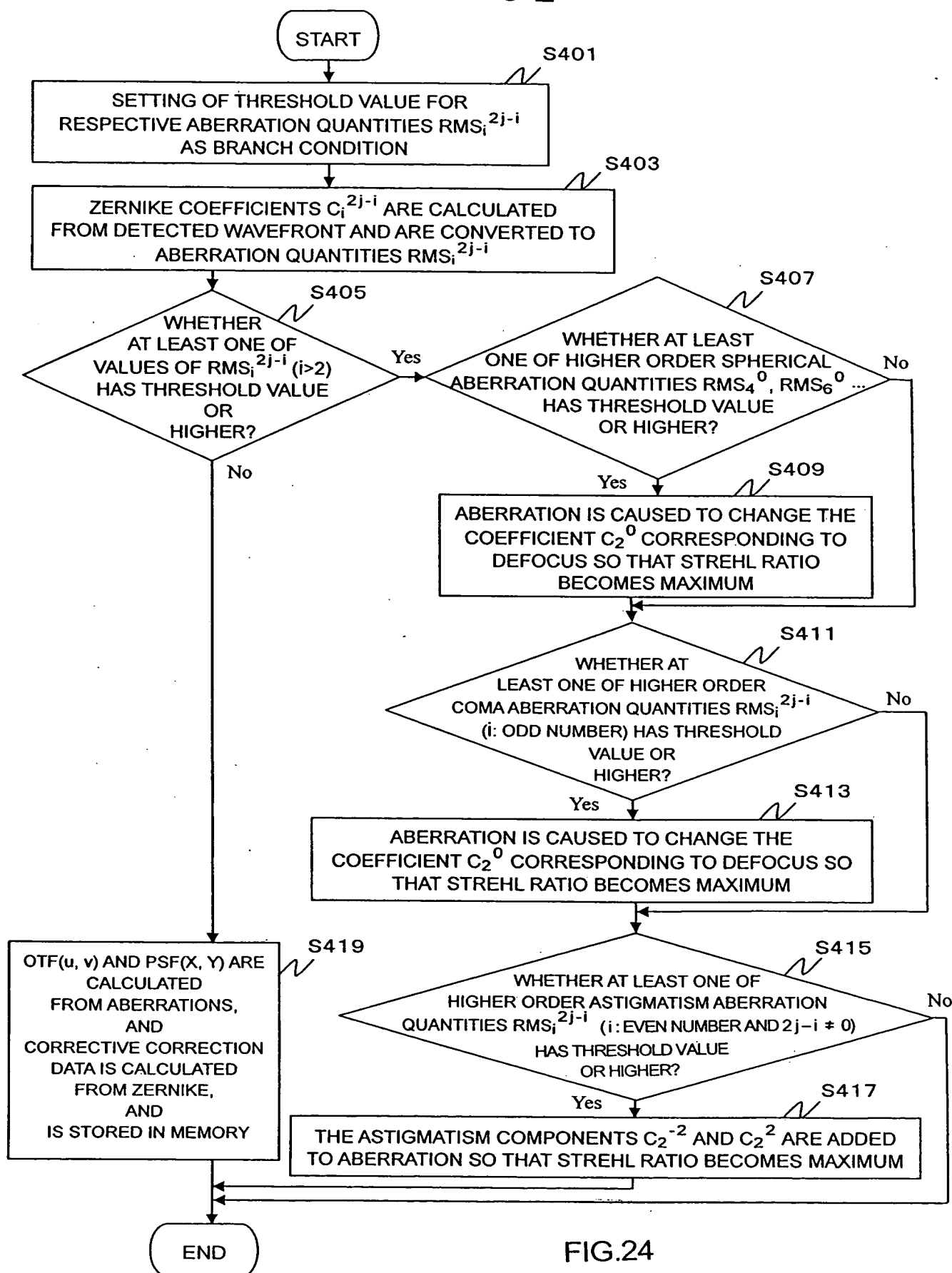


FIG.24



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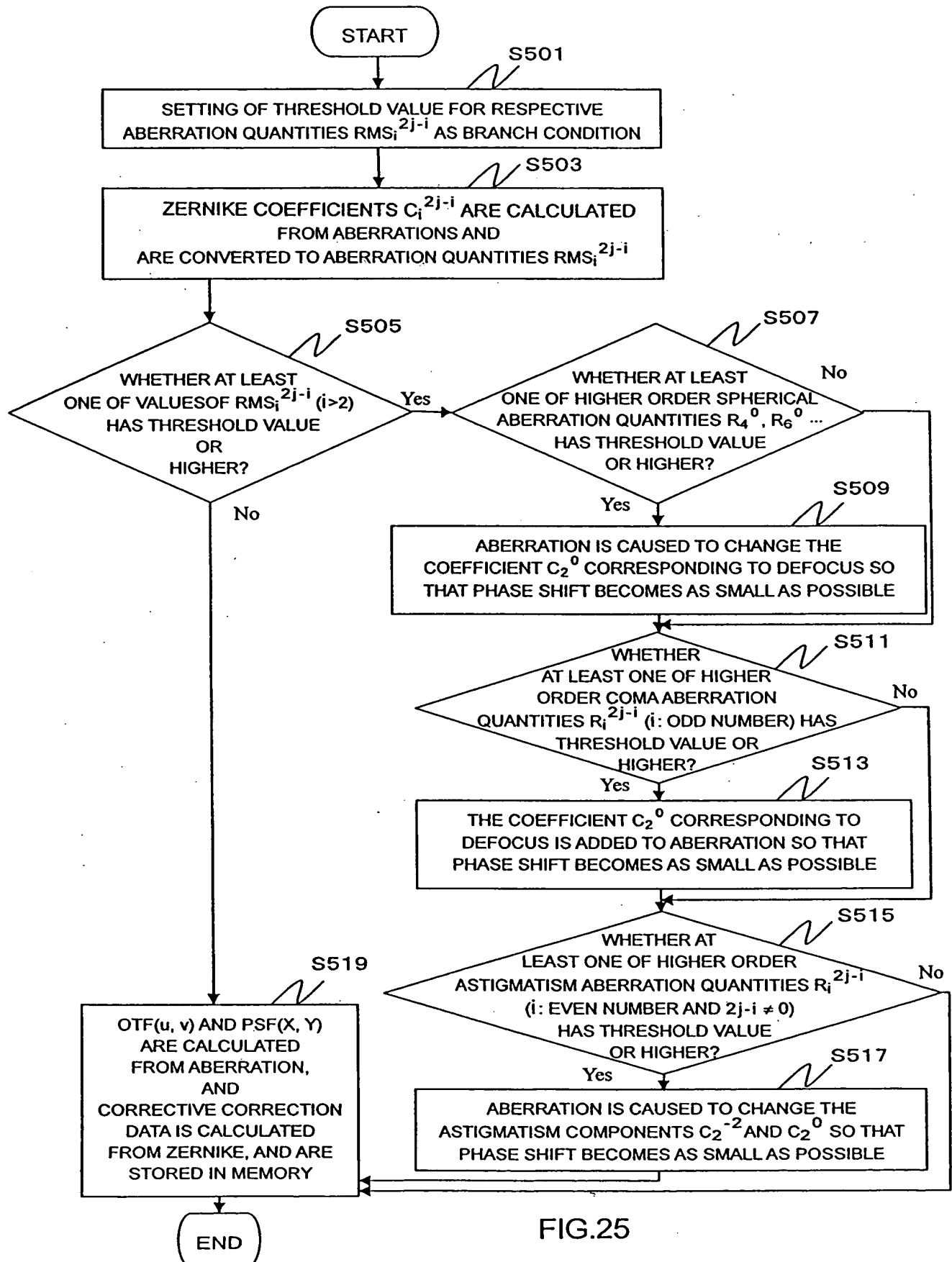
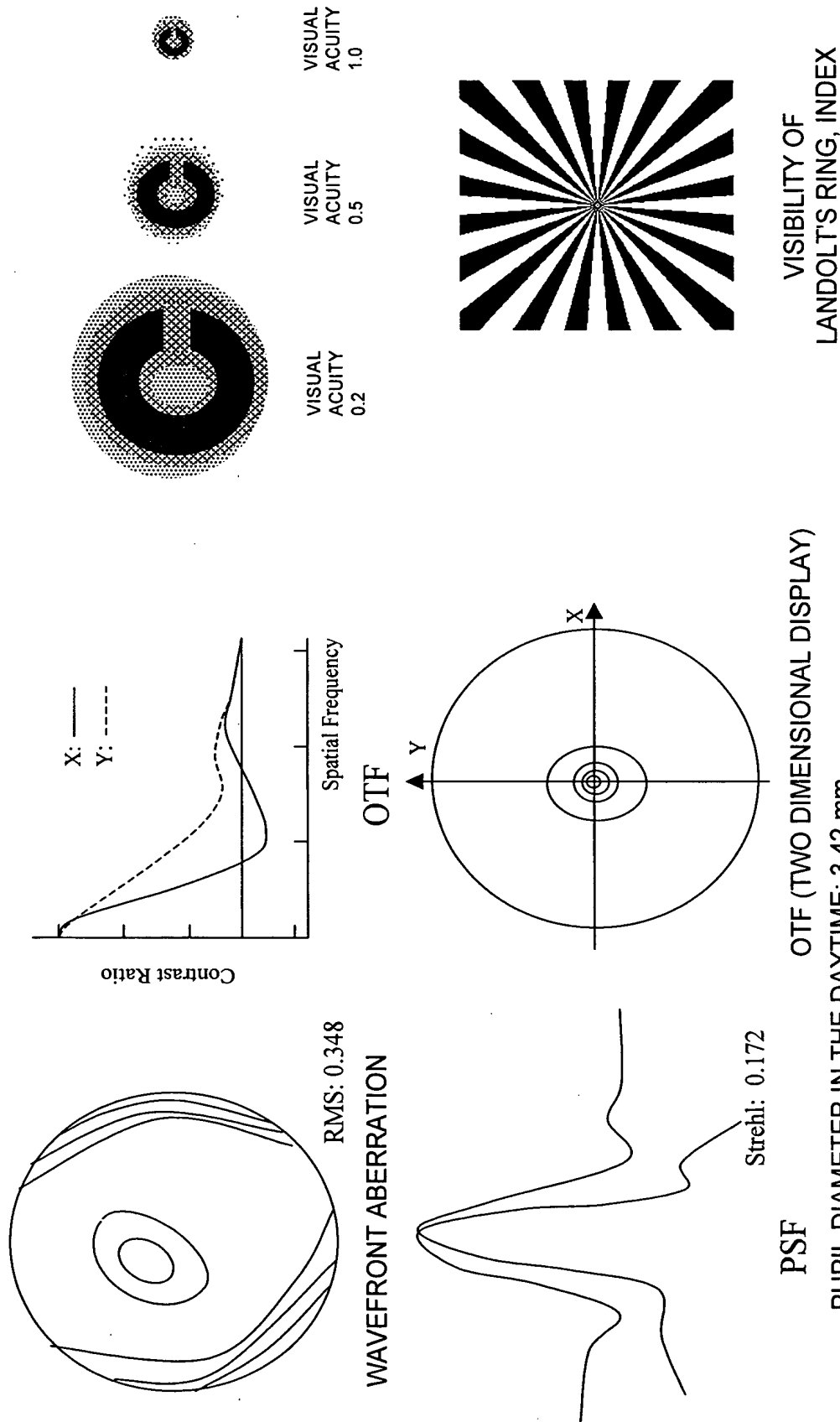


FIG.25

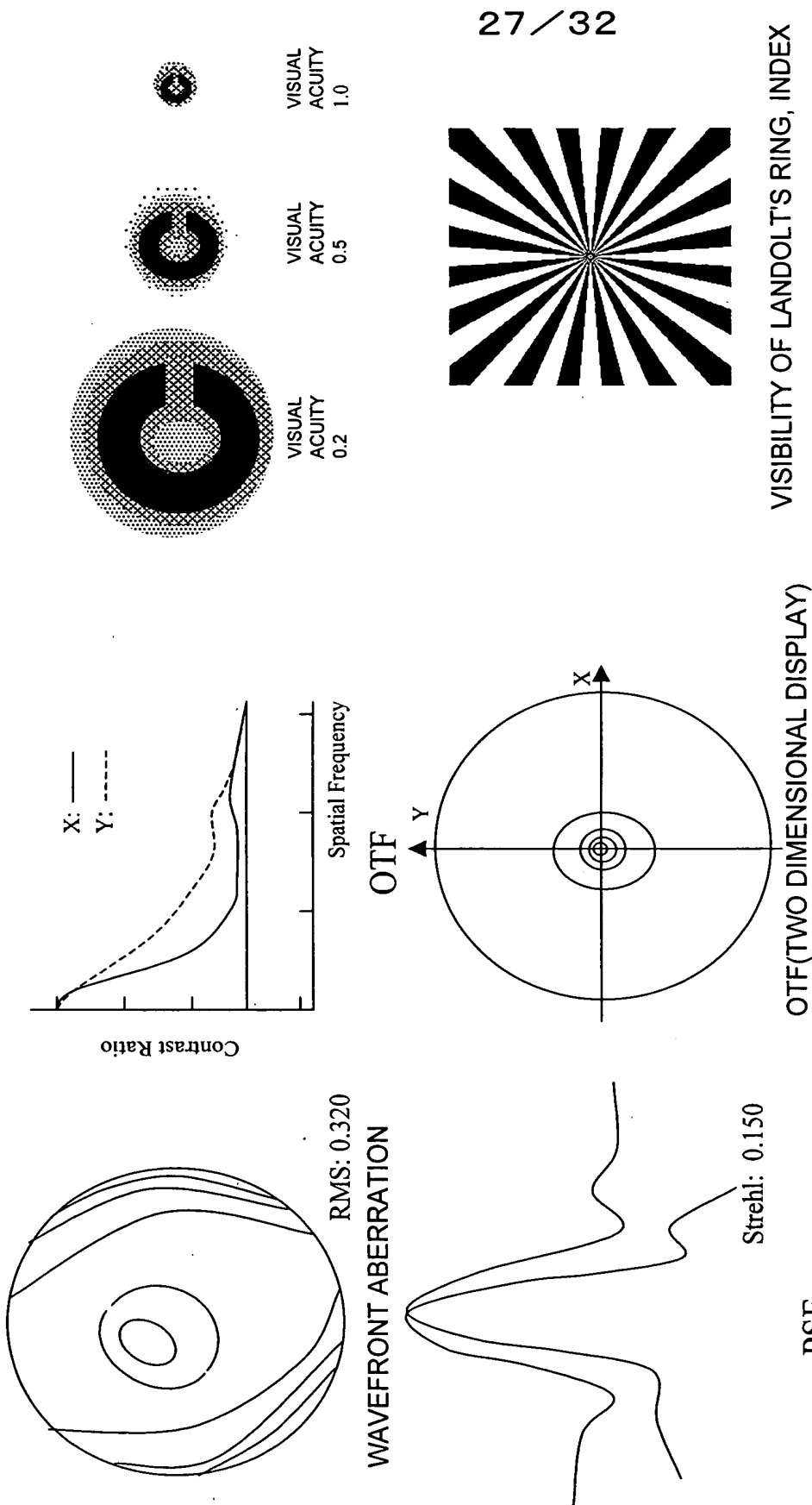
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BEST IMAGE DISPLAY - Strehl OPTIMIZATION

FIG.26

	S	C	Ax
COMPENSATION CORRECTION DATA	-7.15	-0.35	5 DEGREES
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)



PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	S	C	Ax
COMPENSATION CORRECTION DATA	-7.21	-0.37	5 DEGREES
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)

BEST IMAGE DISPLAY - PTF OPTIMIZATION

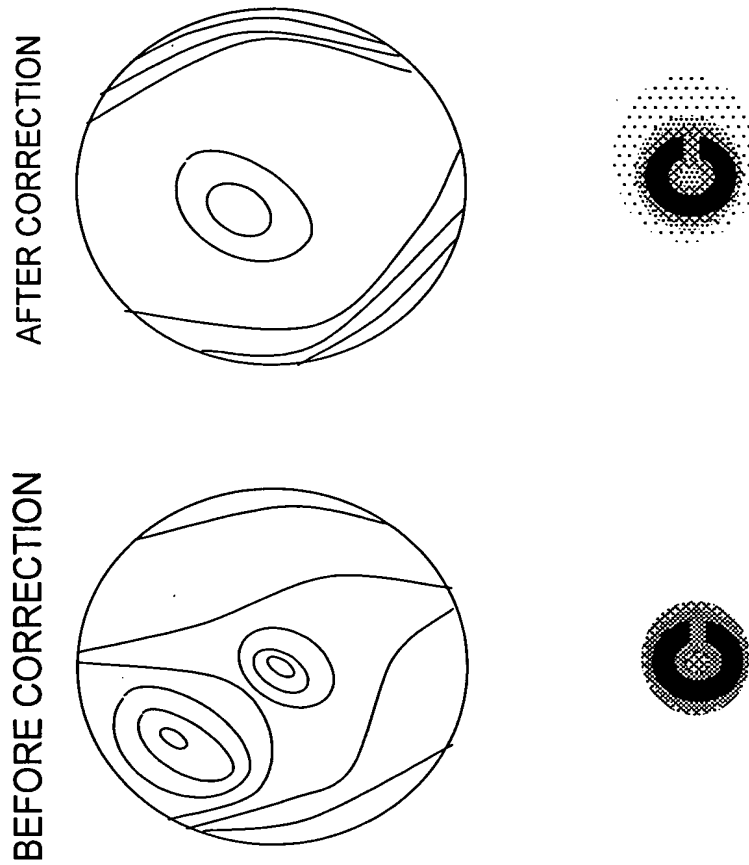
FIG.27

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MITSUKO TOKYO AM 8:04 MARCH 2, 2000

WAVEFRONT ABERRATION

VISIBILITY OF LANDOLT'S RING



	BEFORE COMPENSATION	AFTER COMPENSATION
Strehl RATIO	0.088	0.122

FIG.28

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PREScription DATA FOR EYEGlasses/CONTACTS

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15
C	-0.5	-0.35
A	3	5
Strehl RATIO	0.088	0.122

FIG.29

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# PRESCRIPTION DATA FOR REFRACTIVE SURGERY

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	MEASURED VALUE	COMPENSATION CORRECTION DATA	PREDICTED VALUE AFTER COMPENSATION CORRECTION
S	-7.00	-7.15	-0.15
C	0.5	0.35	0.15
A	3	5	4
HIGHER ORDER SPHERICAL ABERRATION	0.125		0.280
HIGHER ORDER ASTIGMATIC ABERRATION	0.105		0.125
HIGHER ORDER COMA ABERRATION	0.085		0.090
Strehl RATIO	0.088	0.252 (IDEAL VALUE)	0.198

FIG.30

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PREScription DATA FOR EYEGASSES/CONTACTS  
 (COMPARISON WHEN ENVIRONMENTAL CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	IN THE DAYTIME: 3.42mm		UNDER FLUORESCENT LAMP: 6.54mm		IN ROOM AND DAYTIME: 4.35 mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTIO N DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15	-7.33	-7.43	-7.18	-7.31
C	-0.5	-0.35	-0.40	-0.45	-0.45	-0.38
A	3	5	4	4	3	4
Strehl RATIO	0.088	0.122	0.056	0.076	0.078	0.095

VISIBILITY OF  
 LANDOLT'S RING  
 (0.5)

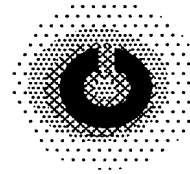
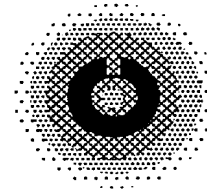


FIG.31

PRESCRIPTION DATA FOR EYEGASSES/CONTACTS  
 (COMPARISON TO CONSTANT PUPIL DIAMETER)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	4mm		6mm		AT TIME OF MEASUREMENT (50 $\times$ ): 6.45 mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.03	-7.18	-7.30	-7.45	-7.33	-7.43
C	-0.52	-0.41	-0.40	-0.43	-0.40	-0.45
A	3	5	4	5	4	4
Strehl RATIO	0.086	0.120	0.064	0.079	0.056	0.076

VISIBILITY OF  
 LANDOLT'S RING  
 (0.5)

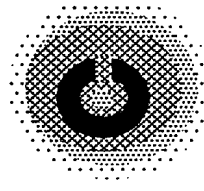
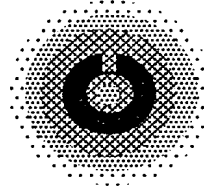


FIG.32